



Food Safety in Toronto

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1.0 INTRODUCTION

Food is necessary for life, and providing food for human consumption is an important economic and cultural activity. However, the consumption of food also carries the risk of foodborne illness, with a large direct and indirect impact on society. As a major cause of personal distress, preventable death and economic disruption, increasing attention is being paid to measuring the burden of this illness and documenting its impact (1). The precise extent of foodborne illness must be estimated, as the vast majority of cases are not reported and therefore not captured in routine health statistics, as explained in the accompanying report *Foodborne Illness in Toronto* (2). The estimates calculated for Toronto are consistent with research in other jurisdictions and evidence cited by the World Health Organization that foodborne illness can affect up to 30% of the population in developed countries annually (3).

The epidemiology of foodborne illness is changing as new pathogens emerge and are spread through global trade and migration routes (4), mostly through zoonotic infectious agents transmitted by food (5). It is almost impossible to produce raw animal products that are free from pathogenic organisms which can be introduced through the transport of live animals, occurrence of animal illness, animal husbandry practices that include feeding methods and building design, and slaughter and processing practices. Foods of animal origin are unavoidably a primary source of foodborne illness.

Changes in food consumption patterns are also affecting foodborne illness, as consumers demand a steady supply of fresh, ready to eat, low-fat and minimally processed foods (6). The consumption of fresh fruits and vegetables, for example, is increasing as consumers seek healthier foods. Consumer demand for diverse international food products including fresh produce year round has helped shaped a global food distribution system involving long range transport and the availability of foods in Canada harvested and processed in many countries under a range of conditions and regulatory regimes. Fresh produce is susceptible to contamination during growth, harvesting, long-distance transport and preparation and has been the source of numerous recent disease outbreaks.

Increasing global travel means that Toronto residents are more likely to become infected with foodborne pathogens that are uncommon to Canada and which may not be easily diagnosed and treated when symptoms appear. At the same time, a long-term trend toward eating a larger proportion of meals outside the home means that retail food safety practices and enforcement of regulations are playing an increasingly important role in the prevention of foodborne illness.

Large-scale centralized production of prepared ready-to-eat food products may increase the risk of contamination and bacterial growth during storage and distribution, as food is kept for longer periods at refrigerated temperatures that favour the growth of organisms such as *Listeria*. As we have seen, when contamination occurs in large centralized processing facilities, an outbreak can occur that affects a large number of consumers across many jurisdictions.

Public concern with food safety has increased dramatically in recent years and there is growing awareness of the potential risks associated with current systems of food supply and distribution (7). Consumer confidence in food safety has fallen and there is a public perception that there is more risk to human health from food now than ever before (8). At the same time there is a public expectation that food provided and served by commercial

food establishments will be safe. It is in this context that Toronto Public Health is working to ensure that at the local level, the food safety regulatory environment and its supporting enforcement framework is being maintained and strengthened where necessary to protect the health of the population. This report describes the role of TPH in the context of the responsibilities of other levels of government in an effort to promote continuous quality improvement by examining how the system currently works and reflecting on where improvements can be made.

2.0 CURRENT FOOD SAFETY SYSTEMS IN TORONTO

The responsibility for food safety in Ontario is shared by federal, provincial and municipal governments through a patchwork of legislation overseen by agencies at all three levels. Federal roles proceed from the national government's responsibility for interprovincial and international trade (10). Any food or meat processing facility in Ontario that engages in trade outside the province must be registered in the federal system and conduct its business in accordance with federal regulations. The Canadian Food Inspection Agency (CFIA) is responsible for food safety at the federal level. The agency is responsible for ensuring that manufacturers, importers, distributors and producers comply with federal regulations and standards governing the safety, quality, handling, identification, processing, packaging and labelling of food. At the provincial level, there are three ministries responsible for administering various statutes and regulations governing the sale and consumption of food in Ontario. The Ministry of Agriculture, Food and Rural Affairs (OMAFRA) is the principal agency in the regulation of meat while the Ministry of Health and Long Term Care (MOHLTC) administers the Food Safety Regulations under the *Health Protection and Promotion Act (HPPA)*. The Ministry of Natural Resources (MNR) has responsibility under the *Fish Inspection Act* to regulate the commercial sale and processing of fish. At the municipal level food safety monitoring, inspection and enforcement is conducted on behalf of the MOHLTC by the 36 local Boards of Health and local health units.

2.1 Federal Government Role

2.1.1 Canadian Food Inspection Agency

The Canadian Food Inspection Agency (CFIA) administers and enforces all federal legislation related to food inspection, agricultural inputs and animal and plant health (11). The CFIA performs this role on behalf of Health Canada, Agriculture and Agri-Food Canada and Fisheries and Oceans Canada. It is responsible for inspecting and regulating federally registered establishments, which are generally those that move products across provincial or national boundaries. About 84 % by volume of the meats processed in Ontario are produced in federally regulated plants inspected by CFIA inspectors (10). The CFIA was established in 1997 under the *Canadian Food Inspection Agency Act*, which consolidates all federally mandated food and fish inspection services and federal animal and plant health activities into a single agency (12). It is a departmental corporation that reports to Parliament through the Minister of Agriculture and Agri-Food. The mandate of the CFIA is to enhance the effectiveness and efficiency of federal inspection and related services for food, animals and plants. It administers and enforces numerous federal Acts and regulations, including the *The Food Safety and Quality Act*, the *Fish Inspection Act*, the *Canadian Agricultural Products Act*, the *Food and Drugs Act* and the *Consumer Protection and Labelling Act*, the last two providing authority to protect Canadians from unfair market practices by the enforcement of

fraud and labelling provisions (13). The CFIA is also responsible for initiating food recalls to remove contaminated or otherwise unsound or unwholesome food from the market.

In November 2005, it became mandatory under the Meat Inspection Regulations for all federally registered establishments to develop, implement and maintain a Hazard Analysis Critical Control Point (HACCP) system (14). HACCP systems must comply with the requirements of the CFIA Food Safety Enhancement Program (FSEP). The adoption of mandatory HACCP enabled the evolution of the CFIA's inspection system into a Compliance Verification System (CVS) which, since April, 2008, provides a uniform approach to verification tasks used by inspection staff to assess compliance with regulatory requirements (14). The CVS allows the food industry to play a greater role in the inspection process through “self-monitoring”, with fewer product-line inspections being conducted by CFIA inspectors. The new system allows industry to submit “action plans” for review and acceptance by inspectors outlining measures that will be taken within specified time frames to address non-compliance issues that have been identified (15). When a co-operative approach is not successful, or when the operator is unwilling or unable to correct non-compliance, the CFIA pursues enforcement options. The responsibilities of the operator include: establishing and maintaining their HACCP system and HACCP records; identifying and correcting infractions or “deviations” in a timely and appropriate manner; and developing and implementing acceptable action plans. Agency inspectors are required to ensure all applicable verification tasks are assigned to an establishment, to conduct verification tasks according to national frequency guidelines, and to take and document enforcement action as necessary to protect public health and animal welfare, and to protect consumers from fraud.

2.1.2 Health Canada

The Federal Health Minister is responsible for establishing policies and standards relating to the safety and nutritional quality of food sold in Canada. The Minister is also responsible for assessing the effectiveness of the CFIA's activities related to food safety. This function is carried out through the Bureau of Food Safety Assessment (BFSA) which is responsible for providing information and advice to the Minister of Health on the effectiveness of CFIA programs and activities (16). Health Canada also participates in the investigation and control of foodborne illness outbreaks.

2.1.3 Public Health Agency of Canada

The Public Health Agency of Canada (PHAC) was created in response to concerns about the capacity of the country's public health system to anticipate and respond effectively to public health threats. Its creation resulted from a wide consultation with the provinces, territories, and other stakeholders and followed recommendations made by public health experts including Dr. David Naylor in his report, *Learning from SARS: Renewal of Public Health in Canada*, which called for clear federal leadership on national issues of public health and improved collaboration within and between jurisdictions (17). The Agency's mandate includes emergency preparedness and response, infectious and chronic disease prevention and control, injury prevention, and promoting good health. This mandate is supported by a collaborative, pan-Canadian public health network. The Agency was created in 2004 and is headed by the Chief Public Health Officer who reports to the Minister of Health.

PHAC is required to promote the health of Canadians through leadership, partnership and innovation. The normal first point of contact within the federal government for issues related to actual or potential foodborne illness outbreaks is the Centre for Infectious Disease Prevention and Control within PHAC. The mandate of the Foodborne, Waterborne and Zoonotic Infections Division of the Agency is to assess and reduce the risk of these diseases in Canada through national surveillance and targeted special studies (18). The Agency may deploy field epidemiologists to assist local or provincial public health authorities during a foodborne illness outbreak investigation and the National Microbiology Laboratory provides related reference services such as bacterial strain identification.

2.2 Provincial Government Role

2.2.1 Ontario Ministry of Agriculture, Foods and Rural Affairs (OMAFRA)

The government of Ontario regulates meat and other foods that are processed for sale and consumption within its boundaries (19, 20, 21). OMAFRA is responsible for dairy and meat inspection programs, key components of the Ontario Food Safety System, and administers and enforces a number of statutes established to minimize food safety risks, while promoting the orderly marketing of commodities produced in Ontario. The *The Food Safety and Quality Act* and the *Livestock Commodity Sales Act* establish standards that govern the production, quality, composition, safety, grading, packaging, labelling, advertising and sale of a product, as well as facility and operating standards for:

- dairy farms and dairy processing plants
- abattoirs, the slaughter of animals and primary processing of meat
- horticulture, including fruits and vegetables and honey
- eggs and livestock
- edible oil products

The three branches within OMAFRA with specific responsibilities for food safety are the Food Inspection Branch (meat inspection), the Food Safety Policy Branch (policy development) and the Livestock Technology Branch (on-farm programs). The Food Inspection Branch monitors compliance with legislated standards for a wide variety of products produced in Ontario. The comprehensive food safety programs include licensing, inspection, laboratory testing, compliance and advisory services.

2.2.2 Ministry of Natural Resources (MNR)

MNR has responsibility under the *Fish Inspection Act (FIA)* to regulate the commercial sale and processing of fish intended for human consumption (10, 20). The *FIA* prohibits the sale of any fish intended for human consumption that is tainted, decomposed or unwholesome, and provides for the inspection of premises where fish are handled, graded, processed or stored. There is currently no inspection program for fish processing facilities apart from that administered by local health units for food premises. MNR also plays an important role in the enforcement of certain legislation administered by OMAFRA through a broad Cooperative Agreement and a Service Level Agreement between the two ministries. Under these arrangements, MNR provides investigative services and resources for the prosecution of offenders who contravene regulations relating to meat production and the disposal of dead animals (10, 21).

2.2.3 Ministry of Health and Long Term Care (MOHLTC)

The MOHLTC administers legislation concerning the delivery of food safety programs and services by Boards of Health in Ontario (11, 12). Its authority is provided in the *Health Protection and Promotion Act* and *Ontario Regulation 562/90 (Food Premises)*. The MOHLTC is responsible for the protection of public health and sets food safety standards and policies for food premises to:

- Ensure that food is stored, prepared, served and distributed in a manner consistent with accepted public health practice
- Stop the sale and distribution of food that is unfit for human consumption by reason of disease, adulteration, impurity or other cause

Its role in food safety inspection is delegated to the 36 local health units and in the normal course, the inspection of food premises is undertaken by Public Health Inspectors under the direction of the local Medical Officer of Health. Public Health Inspectors are responsible for inspecting approximately 80,000 food premises across the province (10).

2.2.4 Ontario Food Safety Strategy

The Ontario Food Safety Strategy (OFSS) was launched in October 2000 following a review of Ontario's food safety system (10). At the time, it was acknowledged that food safety hazards and risks were increasing for a variety of reasons and while food science was responding to meet these challenges, there were elements of Ontario's food safety system that were not keeping pace with national and international inspection standards. Subsequent to an extensive consultative process, the Legislature adopted the *Food Safety and Quality Act (FSQA)* on December 5, 2001. The purpose of the *FSQA* was to modernize the food safety and quality provisions of several statutes to provide a framework for the application of food safety inspection programs that would complement those provided by the CFIA and local health units. The *FSQA* was not actually proclaimed to take effect until February 10, 2005, following the release of the 2004 Haines report (see discussion below).

2.3 Local Public Health Role

The *Health Protection and Promotion Act* provides Public Health Inspectors and local Medical Officers of Health with broad powers to investigate and take any steps which are necessary to eliminate, or minimize hazards to public health. Local public health agencies are responsible for inspections of food service and food retail establishments and food processing plants that are not federally registered. Health units are also responsible for communicating information about food safety to the community and responding to food-related complaints.

Under the current Ontario Public Health Standards, the goal of the local food safety program is to improve the health of the population by reducing the incidence of foodborne illness (22). The objectives are to ensure that food is stored, prepared, served and distributed in a manner consistent with accepted public health practices and to stop the sale or distribution of food that is unfit for human consumption. The Standards establish Societal Outcomes, Board of Health Outcomes and specific Requirements relating to Assessment and Surveillance, Health Promotion and Policy Development, and Disease Prevention and Health Protection that are intended to achieve the goal of preventing or reducing foodborne illness. Board of Health outcome are the results of endeavours by local health units and each Board will be held

accountable for these outcomes. The related Food Safety Protocol provides direction to health units on the delivery of local comprehensive food safety management programs, which include: surveillance and inspection of food premises; epidemiological analyses of surveillance data; food handler training; and timely response to outbreaks and food complaints (23). There are requirements for the establishment of policies and procedures to address non-compliance with the HPPA and related regulations, including enforcement actions.

Local public health units are required by the Ontario Public Health Standards to implement integrated food safety management systems utilizing hazard identification and risk-based approaches for food premises. The system should include: a risk categorization process to determine the risk level, inspection frequency and any other required food safety strategy; an inspection process to determine compliance with the related regulations; and an annual monitoring and evaluation process to assess and measure the effectiveness of food safety strategies. Since all establishments do not present the same risk of causing foodborne illness, priority attention is paid to those premises that are higher risk. A standardized risk assessment form is used to assess and classify food establishments into three categories to determine the annual inspection frequency. Those premises in the high risk category require three annual inspections, while medium risk ones require two inspections and low risk premises at least one a year. Other inspections are required to address unsafe food handling practices, issues of non-compliance, investigation of foodborne illness and consumer complaints.

2.4 Toronto Public Health Role

2.4.1 Toronto Food Inspection and Disclosure System (DineSafe)

TPH implemented a unique Food Safety System in 2001 designed to reduce the risk of foodborne illness in Toronto. The Toronto Food Premises Inspection and Disclosure System (DineSafe), the first of its kind in Canada, originated the concept of combining inspection processes and outcomes with full public disclosure. Disclosure of inspection results occurs through on-site posting of Inspection Notices, provision of Food Safety Inspection Reports and the posting of inspection results on the DineSafe web site at www.toronto.ca/fooddisclosure. The inspection and disclosure functions are supported by a Food Safety Hotline (416-338-FOOD).

Food establishments in Toronto are expected to be in compliance with the requirements of provincial legislation at all times. Inspectors conduct unannounced compliance inspections of approximately 16,000 food establishments annually. When infractions are identified, written instructions are given to the owner/operator outlining the required actions to be taken within a specified timeframe to correct deficiencies. A progressive enforcement approach is used to address non-compliance whereby a ticket is issued if infractions are not corrected at the time of a first re-inspection. This escalates to a summons if there is non-compliance at the time of the next re-inspection. Closures that are enforced due to the presence of a health hazard result in automatic issuance of a summons and an order under the *HPPA* to abate the health hazard. Repeat offenders may be referred to Municipal Licensing and Standards for a licence revocation.

TPH investigates all reports of suspect and confirmed communicable diseases that may be transmitted through food. Where appropriate, a thorough epidemiological investigation is

conducted to determine if cases are linked. When an outbreak is identified, potential cases are followed up to determine if they are part of the outbreak, and staff collect food samples for laboratory testing, enforce food recalls, examine food handling practices in premises and ensure the disposal of any unsafe food.

2.4.2 TPH Food Handler Training and Certification Program

In 2006, City Council passed a bylaw recommended by the Board of Health requiring municipally licensed food premises to have trained and certified food handlers in supervisory positions on site during hours of operation. The bylaw was implemented on a phased-in basis whereby high risk food establishments were required to be in compliance in 2008, medium risk premises in 2009 and low risk ones in 2011. A progressive enforcement strategy is being used to promote awareness of the requirements that must be followed and the legal consequences of non compliance.

As of March 2009, 18,740 food handlers have been trained and certified by TPH since the adoption of the bylaw. An additional 3,538 food handlers were trained either by accredited private training institutions or other local health agencies and certified by TPH, for a total of 22, 278. The training provides the food handler with a basic understanding of food safety, including: public health legislation and the role of the board of health; food safety management principles; safe food handling, preparation and storage; food handler hygiene; food premises sanitation; allergy awareness; and food safety in emergency situations.

2.4.3 TPH Quality Assurance and Data Management

To ensure consistency in inspection and enforcement, TPH food safety programs are supported by a quality assurance process that applies detailed policies and procedures, and an advanced database, the Toronto Healthy Environments Information System (THEIS). The quality assurance team conducts periodic record reviews, joint inspections with field staff, and productivity and performance audits to ensure completeness, accuracy and adherence to established policies and procedures. THEIS ensures that operational data can be captured consistently, provides quick and easy access to up-to-date and reliable reports, and facilitates the daily updating of the DineSafe website.

2.5 Foodborne illness outbreaks: Inter-agency coordination

The investigation of a foodborne illness outbreak may require the involvement of more than one agency. Accordingly, coordination is required between agencies and their staff to optimize the effectiveness of an investigation. Three important service documents have been developed to guide inter-agency activity in these situations: the Ontario Foodborne Health Hazard and Illness Outbreak Investigations Memorandum of Understanding (20); the Food Premises Plant Investigation Multi-agency Roles (19); and the Foodborne Illness Outbreak Response Protocol to Guide a Multi-jurisdictional Response (FIORP).

The 2004 FIORP document was developed by federal agencies with the following objectives:

- formalize established practices in responding to foodborne illness outbreaks
- enhance collaboration and coordination of partners
- describe the roles of various agencies at the federal/provincial/territorial level

It calls for an Outbreak Investigation and Coordination Committee (OICC) to be formed in response to an outbreak involving multiple jurisdictions with appropriate representation from all affected agencies, where information would be shared, issues discussed and decisions made in a coordinated fashion. This process is to be undertaken on a voluntary basis.

The 2005 MOU is a voluntary arrangement to enhance public safety through effective and efficient risk mitigation programs in relation to foodborne health hazards and illness outbreaks in Ontario. The agencies that signed the MOU were the CFIA and Health Canada for the federal government, and the MOHLTC, OMAFRA and MNR for the province of Ontario. Specific roles and responsibilities are identified relating to: notification of any human illness outbreak that is potentially or confirmed to be linked to food; notification of foodborne health hazard with potential to cause human illness; outbreak investigation coordination; response when a food safety investigation indicates that the underlying cause may be associated with tampering, sabotage or terrorism; and food recalls.

The 2008 Multi-agency Roles and Responsibilities document was developed to provide a description of the agencies that may be involved in the investigation of a food plant during a foodborne outbreak. It recognizes that in every outbreak investigation, the type of plant, the skills required, and the staff involved will depend on the particulars of the situation. The document is therefore intended to be updated upon review of each outbreak. Roles and functions are set out for local public health units, the CFIA, OMAFRA, the MOHLTC, PHAC and the Federal Epidemiologist.

2.6 Food Recalls

The CFIA has the lead responsibility for food recalls, to provide public notification and to remove unsafe products from the food supply (24). For a recall to occur, the CFIA (or a province/territory) requests a health risk assessment be conducted by Health Canada (or CFIA assessors in consultation with Health Canada). To conduct a health risk assessment, Health Canada requires all evidence to be submitted in writing, which may include microbiological, inspection and traceback records, as well as epidemiological evidence (which is reviewed by PHAC). The risk assessment must identify a food product (or products) with as much specificity as possible. The CFIA will then decide what action to take, based on the health risk assessment.

There are three classes of food recall as follows:

- Class 1 - there is a reasonable probability that the consumption/exposure to the investigated food will lead to an adverse, life-threatening health consequence
- Class 2 - there is a reasonable probability that consumption/exposure to a food will lead to temporary or non-life threatening health consequences
- Class 3 - there is a reasonable probability that the consumption/exposure to a food is not likely to result in any adverse health consequence.

Each year the CFIA conducts about 3,000 food safety investigations resulting in an average of 360 food recalls to remove unsafe products from the market (25). Where a Class 1 recall is warranted, the CFIA will issue a news release to notify the public and the media; in addition, the information will be posted on the CFIA website and anyone can subscribe to receive an email notification of the recalls. There is no clearly documented policy on the release of information for the other two classes of recalls.

It is the responsibility of the industry to remove the product from sale and distribution. The CFIA can conduct effectiveness checks on a random sample of food establishments to verify that the product has actually been recalled. On some occasions the CFIA may request assistance from local public health units through the MOHLTC to verify the effectiveness of the recall. If a company is unwilling to remove an implicated product from sale, the CFIA or TPH may seize and detain that product and further action, including prosecution may be taken.

3.0 ISSUES AND CONCERNS WITH CURRENT SYSTEM

Food safety systems must be based on sound science to protect public health and maintain consumer and business confidence. Ontario's food regulatory system is designed to prevent or reduce the incidence of foodborne illness and to varying degrees, every stage from on-farm production to retail sale is regulated. The existing system also contains elements designed to prevent wrongful conduct and to identify and promptly respond to instances of non-compliance.

However, there are weaknesses in this system that should be addressed to provide greater assurance that food produced, supplied and served in commercial establishments and other facilities is safe. The most comprehensive system-wide review was presented in the 2004 report of Justice R.J. Haines "Farm to Fork – A Strategy for Meat Safety in Ontario" along with 113 recommendations to correct deficiencies and reduce public health risks (10).

3.1 Justice Haines Review

Justice Haines conducted a review of meat regulatory and inspection regimes, including a review of regulatory standards and the respective roles of provincial ministries responsible for overseeing those standards. The report's recommendations set out actions to be undertaken by the government to improve the food safety system in Ontario, including strategies for accelerating harmonization with the federal government. Of the total, 85 recommendations were directed to OMAFRA and aimed to ensure that meat is processed in provincially regulated facilities with a negligible level of risk. A number of important recommendations were directed to the CFIA, the MOHLTC and MNR. While OMAFRA has made significant progress toward implementation of its portion of the recommendations, the same cannot be said of the other agencies named (26). Several of the issues raised in the following discussion are outstanding matters that remain unaddressed from the report of Justice Haines.

3.2 Implementation of Hazard Analysis Critical Control Points

Hazard Analysis Critical Control Points (HACCP) is a science-based system designed to detect potential food hazards before they occur and to allow for implementation of control measures that will reduce or eliminate the likelihood of their occurrence. HACCP-based programs are vitally important as a back-up to routine inspection and testing protocols. The system is established worldwide as the foremost means of ensuring food safety throughout the food chain.

Justice Haines recommended that all food premises be required to implement a HACCP-based food safety program. OMAFRA has developed a voluntary HACCP Advantage Program for provincially licensed abattoirs. There is also a Food Safety Protocol in the new Ontario Public Health Standards requiring local health units to incorporate HACCP

principles in the inspection process and to promote food safety management strategies including HACCP principles among operators of high and moderate risk premises. These are important steps, but a mandatory HACCP food safety program for all food premises, as recommended in the Haines report, is necessary to strengthen food safety practices in Ontario.

3.3 Food Handler Training and Certification

Food handlers who prepare and serve food to the public must be knowledgeable of the factors involved in keeping foods safe. Unsafe food handling practices can result in pathogenic organisms entering the food, and surviving and multiplying to numbers that can cause foodborne illness. Because food-handlers play a key role in food safety, providing them with information on safe practices is a critical aspect of achieving success in food safety. Haines recommended a legal requirement for food-handler certification in Ontario, but it currently exists only in Toronto and some other local jurisdictions. The provincial Food Safety Standards requires public health units to ensure that food safety training programs are available to food handlers and to promote the certification. However, it falls short of requiring mandatory certification or the provision of a provincial food handler certification program.

3.4 Consumer Education and Awareness

In today's climate of sustained media and consumer interest in food safety, regulatory authorities need to communicate with consumers about food safety risks and how to prevent them. Because a significant portion of foodborne illness is linked to the home setting, it is critically important that consumers understand their role in food safety. Although many people recognize the potential seriousness of foodborne illness, there is a shortage of information on safe food handling and storage practices. Comprehensive public education interventions are required to strengthen awareness and promote consumer knowledge about risks and safe food handling practices. The Ontario Food Safety Standards include requirements for the provision of food safety information and educational material to targeted groups and to the general public. The TPH DineSafe website, in addition to providing inspection results, has food safety information directed to both food handlers and the public. TPH also conducts public education campaigns on food safety and provides information materials and programs to institutions and groups on request. A more consistent and intensive provincial program should be developed.

3.5 Consistent Local Enforcement and Standardization of Service

Where instances of non-compliance with the *HPPA* and related regulations are identified, Public Health Inspectors and Medical Officers of Health may issue orders to ensure corrective actions, either immediately or within a specified timeframe. These may include the removal or destruction of an unwholesome product or the closure of a food premises until deficiencies have been addressed. Public Health Inspectors have been designated as Provincial Offences Officers for the purposes of enforcing the *HPPA* and can initiate charges under the *Provincial Offences Act* by issuing a summons or ticket stipulating a fixed fine. Where a ticket is issued, the recipient has the option of paying the fine or disputing the charge in court. Within this framework there is no provincial compliance and enforcement policy. Local health units are required to establish their own policies and procedures for non-compliance, resulting in inconsistent approaches to enforcement across the province. The

MOHLTC is making efforts to standardize certain activities by setting requirements for all Boards of Health in the Food Safety Protocol and Standards. However, more needs to be done to monitor and coordinate the efforts to ensure standardization and consistency in risk assessments, inspections, enforcement and related activities.

3.6 Public Health Capacity

A number of food safety system reviews have identified limited capacity in fiscal, technical and human resources as a deficiency. Justice Haines made several recommendations to address numbers, training and experience of staff at all three agency levels - federal, provincial and municipal. Local public health units consistently find it challenging to achieve the mandated inspection frequencies for food premises due to limited numbers of staff and competing demands from other public health programs. This will become an even bigger challenge in 2009 as there are additional service requirements in the revised Ontario Public Health Standards.

Several public and independent reviews have also identified limited capacity, particularly of Laboratory services, as a major factor affecting the ability of the CFIA to ensure a safe food system. The need for enhanced provincial public health laboratory services to support the investigation of foodborne illness was highlighted during the 2008 Listeriosis outbreak. Food and patient samples were sent for testing in numerous different directions to laboratories located at sites administered locally, provincially and nationally. The coordination of testing in multiple laboratories spread out across the country increased the complexity of the process and the time required to obtain results. In addition, the Ontario public health laboratory has no access to the Integrated Public Health Information System (IPHIS), the provincial database used by local health units for case management and reporting to the province. Access to this data is necessary for the provincial laboratory to provide a comprehensive analysis of disease trends and to enable early identification of emerging issues and potential outbreaks.

3.7 Food Recalls and Public Notification

Even when a food safety system is strong, there will be occasions when it is necessary to recall products. Although the CFIA has the lead responsibility for recalls, both provincial and local Medical Officers of Health have the authority under the HPPA to initiate recalls to eliminate a health hazard when it is present in their jurisdiction. In almost all instances over the past decade the MOHLTC and local public health units have deferred to the CFIA with respect to recalls. But, in the experience of TPH with several large outbreaks, the CFIA requires evidence of confirmed links between a suspected food source and illness in people, a standard that may have the effect of delaying the recall. For example, in a 2005 Salmonella outbreak related to bean sprouts, there were several clusters of illness across the province and TPH shut down the bean sprout plant in Toronto before the CFIA issued a food recall. In the case of the 2008 Listeriosis outbreak, the CFIA waited until matching DNA fingerprint patterns were received from packaged, unopened food products and human specimens before declaring that the suspected food source was linked to human illness.

The threshold for deciding to recall a food product or notify the public is an important policy issue which has been a source of ongoing discussion between responding agencies. In public health practice, epidemiological evidence may be used to determine whether there are reasonable and probable grounds to believe a particular exposure (such as eating a food

product) is responsible for illness. In a foodborne outbreak, by examining data measuring the interactions between agent, host and timing, a determination can be made as to whether a food is a likely cause of the outbreak. Public health officials often err on the side of health protection by notifying the public about likely health risks, even when a precise cause and effect relationship has not been definitively established. Given the potential for different approaches in outbreak situations, a more health-protective threshold for recall and notification decisions should be established to strengthen public safety.

3.8 Clarification of Agency Roles

Medical Officers of Health and Public Health Inspectors are authorized to inspect all food premises in their local health unit, including meat plants. However, across Ontario the inspection of abattoirs and related facilities is done by OMAFRA and its inspectors. There is an informal understanding between OMAFRA and local public health units that the retail portion of Free Standing Meat Plants is to be inspected by local health units. This causes some uncertainty when it is not clear if an operation is the main business or only a retail section. This situation may result in a duplication of inspection activity, or worse, no inspection or monitoring of some premises. In Toronto OMAFRA normally informs TPH of the premises licensed as Free Standing Meat Plants and requests input on the status of those premises prior to the issuance of a license. Efforts are being made to establish a formal agreement between OMAFRA and the MOHLTC to clarify the roles and responsibilities of OMAFRA and local public health units with respect to this matter.

3.9 Foodborne Illness Outbreaks: Inter-agency coordination

The Foodborne Illness Outbreak Response Protocol to Guide a Multi-jurisdictional Response (FIORP) calls for an Outbreak Investigation and Coordination Committee (OICC) to be formed when there is an emergency/large outbreak. In the 2008 Listeriosis outbreak FIORP was not activated and an OICC was not invoked. Although daily teleconferences were held and these can be an important mechanism of coordination, they frequently did not provide the necessary direction and guidance required at the local level.

The Multi-agency Roles and Responsibilities document clearly outlines the notification requirements and steps to be taken when investigating a foodborne outbreak where more than one agency is involved. In spite of this, problems in coordination and communication between local health units and federal and provincial agencies can and does occur. For example, during the 2008 Listeria outbreak TPH was required to submit a written request to the CFIA requesting involvement in the plant investigation. Although the request was granted, the TPH role was limited and initially there was an apparent reluctance to share information. This affected the ability of the health unit to respond to requests from the public and other stakeholders with a coherent set of messages. The Roles and Responsibilities document does not provide sufficient clarity on the type of information sharing that should occur in these situations. It states that “local health units would have the expectation that other agencies would immediately contact/notify and involve them in the plant investigation.” It also states that local health units would expect investigation reports and sample results to be shared. Similar issues of cooperation and coordination have arisen during other large multi-jurisdictional outbreaks.

Improvements are also needed in inter-agency communication between the MOHLTC and local public health units. During the 2008 Listeriosis outbreak, it was apparent to TPH that the various inter-jurisdictional documents were not being utilized and few of those involved were even aware of their existence; some thought they were only draft materials for review. These documents need to be updated and revised with input from federal, provincial and local agencies. Training and exercises should be conducted to ensure that the process and protocols are understood and followed, with official activation of an OOICC when a large outbreak occurs.

3.10 Self Regulation of the Food Industry

In light of recent foodborne illness outbreaks linked to inadequate controls at food processing facilities, concerns have been expressed by health authorities and others about the effectiveness of the federal Compliance Verification System and its self-monitoring features (15, 27, 28, 29). These concerns suggest that there is too much reliance on information supplied by plant operators or, in the case of imports, a source located in a foreign country. Although some food processors are meeting or exceeding standards with environmental and finished product testing and enhanced cleaning and sanitization practices, it is reasonable to expect that direct inspection by trained staff of a public agency may provide greater assurance that standards are indeed being met in all food industry premises. Significant issues of accountability and effective regulatory oversight by public agencies are being raised in current reviews under way at both the provincial and federal levels. These issues will remain the proper focus of efforts to strengthen the food safety system.

3.11 Transparency and Public Disclosure of Food Safety Performance

Consumers should have access to information on how the food safety system works, what efforts are being taken to reduce the risks in food production and preparation, and what they can do to minimize risks to health. There are requirements in the provincial Food Safety Standards for the establishment of procedures for disclosure of information from compliance inspection by local public health units, but there is no standardized approach. The disclosure components of the Toronto DineSafe program are intended to provide the public with easy access to inspection results. This enables people to make informed decisions about the food premises they choose to visit. Other health units have adopted or are developing similar types of disclosure systems. There is no comparable initiative at the national level to provide routine disclosure of federal inspection results. The CFIA posts food recall information on its website and public warnings may be issued depending on the seriousness of risk to health. But more transparency is needed. Effective communication is especially important in circumstances where an adverse event has occurred or is threatened. The public expects government to respond proactively to any health threat and accountability through open communications is a critical part of any such response. Particularly when there are overlapping jurisdictions, there is a fundamental requirement for all levels of government through their responding agencies to communicate to the public in a clear and coordinated fashion.

3.12 Food Handler Employment Standards

There is evidence that suggests a significant proportion of foodborne illness transmitted in restaurant settings may be attributed to ill food handlers (30). Many food handlers work for minimum wage and do not have paid sick time benefits. Food handlers participating in TPH training programs have confirmed that not being able to afford any time loss due to illness leads to workers reporting for work when they are ill. Changes to employment standards or the creation of a publicly funded sick time benefit program are policy options which might reduce the risk of foodborne illness by recognizing. Such options should be examined for their potential feasibility and health benefits.

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